IN THE CLAIMS

1-18. (Cancelled)

19. (Currently Amended) A method for a processing film stack formed on a substrate, the film stack having at least a patterned photoresist layer having a thinner portion formed between thicker sections and disposed over an first metal layer, a first silicon layer underlying the first metal layer, a second silicon layer underlying the first silicon layer, and a second metal layer disposed between the second silicon layer and the substrate, wherein the thinner sections of the patterned photoresist layer is over the second metal layer, wherein the thickness difference between the thin and thick section is sufficient to leave the thicker section of the photoresist layer after the thinner section is removed by an ashing process, the method comprising:

etching a portion of the first metal layer in a processing chamber exposed by the patterned photoresist layer to expose a portion of the first silicon layer; and

etching the exposed portion of the first silicon layer in the processing chamber.

20. (Original) The method of claim 19 further comprising:

etching in the processing chamber a portion of the second silicon layer exposed by the etching of the first silicon layer.

21. (Previously Presented) The method of claim 20 further comprising:

exposing a portion of the first metal layer through the photoresist.

22. (Previously Presented) The method of claim 21, wherein the step of exposing the portion of the first metal layer through the photoresist further comprises:

ashing a portion of the photoresist.

23. (Currently Amended) The method of claim 21, wherein the step of exposing the portion of the first metal layer through the photoresist further comprises:

removing ~~a~~ the thinner section of photoresist disposed between the thicker sections of photoresist.

24. (Previously Presented) The method of claim 21 further comprising:

etching the portion of the first metal layer exposed through the photoresist to expose a second portion of the first silicon layer.

25. (Original) The method of claim 24 further comprising:

etching through the second portion of the first silicon layer to expose a second portion of the second silicon layer; and

etching a channel in the second silicon layer.

26. (Original) The method of claim 24, wherein the step of etching the channel further comprises:

leaving a strip of the second silicon layer between the channel and the second metal layer.

27. (Original) The method of claim 22, wherein the step of ashing is performed in the processing chamber.

28. (Original) The method of claim 19, wherein the step of etching the first metal layer further comprises:

providing a first process gas energized by a remote plasma source to the processing chamber; and

providing a second process gas to the processing chamber.

29. (Original) The method of claim 28, wherein the step of etching the first metal layer further comprises:

biasing the gases provided to the processing chamber with an RF power source.

30. (Original) The method of claim 29, wherein the step of biasing further comprises:

applying RF power to at least one of a gas distribution plate or a substrate support disposed in the chamber body.

31. (Original) The method of claim 28, wherein the first process gas is BCl_3 and the second process gas is a chlorine comprising gas.

32. (Original) The method of claim 19, wherein the step of etching the first silicon layer further comprises:

providing a first process gas energized by a remote plasma source to the processing chamber; and

providing a second process gas to the processing chamber.

33. (Original) The method of claim 32, wherein the step of etching the first silicon layer further comprises:

biasing the gases provided to the processing chamber with an RF power source.

34. (Original) The method of claim 33, wherein the step of biasing further comprises:

applying RF power to at least one of a gas distribution plate or a substrate support disposed in the chamber body.

35. (Original) The method of claim 32, wherein the first process gas is SF_6 and the second process gas is O_2.

36. (Original) The method of claim 32, wherein the first process gas is NF_3 and the second process gas is O_2.

37. (Currently Amended) The method of claim 25 further comprising:

removing the photoresist from the film stack by ashing; and

removing etch residues from the ashed filmstack.

38. (Original) The method of claim 37, wherein the step of removing etch residues further comprises:

transferring the substrate to another processing station within a cluster tool having the processing chamber coupled thereto.

39. (Original) The method of claim 37 further comprising:

deposing a passivation layer on the ashed film stack after residue removal.

40. (Currently Amended) The method of ~~claim 37~~ claim 39, wherein the step of depositing further comprises:

transferring the substrate to a deposition chamber within a cluster tool having the processing chamber coupled thereto.

41. (Currently Amended) The method of ~~claim 37~~ claim 39, wherein the step of depositing further comprises:

depositing ~~a~~ the passivation layer in the processing chamber wherein the film stack was etched.

42. (Original) The method of claim 37, wherein the step of ashing occurs in the processing chamber.

43. (Original) The method of claim 37, wherein the step of removing etch residues further comprises:

transferring the substrate to a residual removal station coupled to a factory interface.

44. (Original) The method of claim 43 further comprising:

depositing a passivation layer in a station coupled to the factory interface.

45. (Original) A method in-situ etching of silicon and metal layers of a film stack, comprising:

etching an upper metal layer of the film stack in a processing chamber to expose a portion of an underlying silicon layer; and

etching a trench in the silicon layer without removing the substrate from the processing chamber.

46. (Original) The method of claim 45, wherein the step of etching the upper metal layer and the silicon layer further comprises:

using a photoresist mask to pattern the etching.

47. (Original) The method of claim 45 further comprising:

ashing a photoresist layer disposed on the first metal layer without removing the substrate from a cluster tool having the processing chamber coupled thereto.

48. (Original) The method of claim 47 further comprising:

removing etch residues from the substrate without removing the substrate from the cluster tool.

49. (Original) The method of claim 43 further comprising:

depositing a dielectric material on the substrate without removing the substrate from the cluster tool.

50. (Previously Presented) A method of in-situ etching multiple layers of a film stack, comprising:

etching a first layer of the film stack in a processing chamber to expose a portion of an underlying second layer; and

etching the exposed portion of the second layer without removing the substrate from the processing chamber, wherein the first and second layers are different materials selected from the group consisting of metals, silicon, a-silicon, N+silicon or passivation nitride; and wherein at least one of the etch steps comprises exciting a processing gas remotely from the processing chamber.

51. (Previously Presented) The method of claim 50 further comprises:

flowing the excited process gas into the processing chamber; and

coupling a power across the excited process gas disposed within the processing chamber.

52. (Original) The method of claim 51, wherein the step of exciting further comprises:

flowing the process gas through a remote plasma source; and

energizing the process gas within the remote plasma source with about 5-30 kWatt RF power.

53. (Original) The method of claim 51, wherein the step of coupling further comprises:

coupling about 5-30 kWatt RF power between a gas distribution plate and a substrate support pedestal.